

IntraSpection™ Personality Module

**IntraStack™ 6000 Series
Ethernet Switch**

User's Manual

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About This Manual

This manual introduces the IntraSpection Personality Module for the following device:

- ❑ The Asanté IntraStack 6000 Series Ethernet switch

This manual defines a Personality Module and explains how to install and use the IntraStack 6000 Series Personality Module.

Chapter Contents

This manual is divided into the following chapters:

- ❑ Chapter 1, “Introduction,” describes IntraSpection Personality Modules and the system requirements needed to install and use one.
- ❑ Chapter 2, “Installation” explains how to install the IntraStack 6000 Series Personality Module.
- ❑ Chapter 3, “Accessing the Device,” explains how to access the Personality Module’s **Device Page**, which allows for management of an IntraStack 6014DSB and any installed expansion units.
- ❑ Chapter 4, “Management” explains how to perform some basic management functions.
- ❑ Chapter 5, “Menus,” describes each management menu and its contents.

Document Conventions

This manual uses the following conventions to convey instructions and information:

- Commands and key words are in **boldface** font.
- △ **Note:** Noteworthy information, which contains helpful suggestions or references to other sections in the manual, is in this format.
- ▲ **Important:** Significant information that calls attention to important features or instructions is in this format.

Audience

This manual uses terms and concepts associated with Ethernet networking and switches; it is recommended that the user of this manual be familiar with local area networking and Ethernet switches.

This manual also assumes familiarity with IntraSpection Web-based network management.

Introduction

IntraSpection Personality Modules

A Personality Module is a “plug-in” to the IntraSpection system that allows for expanded management of an SNMP (Simple Network Management Protocol) device by specifically addressing the device’s proprietary information (the “Private MIB”).

Management capabilities are accessed via the Personality Module’s IntraSpection **Device Page**. See Figure 1-1.

IntraStack 6000 Series Personality Module

The IntraStack 6000 Series Personality Module allows for expanded management of an Asanté IntraStack 6014DSB and any installed expansion units (such as the IntraStack 6008FX and IntraStack 6016DSE).

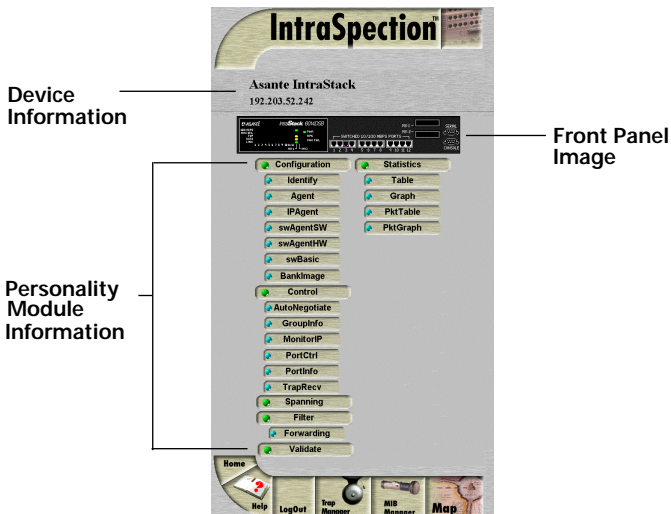


Figure 1-1 IntraStack 6000 Series Device Page

Management Options

The IntraStack 6000 Series Personality Module supports the following management options:

- ☐ Device identification information
- ☐ SNMP agent information
- ☐ IP agent protocol information
- ☐ Software agent information
- ☐ Hardware agent information
- ☐ Image bank information
- ☐ Device- and group-level resets
- ☐ Port auto-negotiation
- ☐ Group information
- ☐ IP address monitoring
- ☐ Port configuration and information
- ☐ Trap receivers
- ☐ Spanning tree configuration
- ☐ Filter forwarding information
- ☐ Counter statistics (table and graph formats) at the port-level
- ☐ Packet statistics (table and graph formats) at the port-level

See Chapter 5, “Menus,” for a detailed description of each management option.

Minimum System Requirements

Server

- ☐ IntraSpection version 1.01 or greater
- ☐ PC with 80486 or faster microprocessor
- ☐ 48MB RAM
- ☐ 100MB free disk space
- ☐ Windows NT™ 3.51 or higher or Windows NT 4.0 (recommended)
- ☐ Web server that supports Common Gateway Interface (CGI) 1.1 (such as Netscape FastTrack Server™, Microsoft IIS, NCSA HTTP, etc.)
- ☐ Any database management system that supports ODBC, such as Microsoft Access™, Oracle™, or Microsoft SQL Server

Client

- ☐ Any Windows™, Windows NT, Macintosh™ or UNIX® workstation
- ☐ Any World Wide Web browser with Java™ and Java Script support such as Netscape Navigator® (version 3.0 required, 3.01 recommended), Netscape Communicator™, or Microsoft Internet Explorer™

2

Installation

Installing a Personality Module

This chapter explains how to install the IntraStack 6000 Series Personality Module.

- ▲ **Important:** The Personality Module is installed on the computer where the IntraSpecation Application Server is installed.

Before installing the Personality Module, make sure that IntraSpecation (websuite.exe) is **not** running on the computer.

- 1 Insert the Personality Module CD into the computer.
- 2 Open the CD to display its contents.
- 3 Double-click the **IntraStack.exe** file.
- 4 Click **Yes** at the “IntraSpecation Personality Module Installation Confirmation” dialog box.
The IntraSpecation Personality Module information window appears.
- 5 Click **Finish** to continue.
The Personality Module files are decompressed.
The “IntraSpecation Personality Module Welcome” dialog box appears.
- 6 Click **Next**.
The “Software License Agreement” window appears.
Review the agreement carefully.

- 7 Click **Yes** to accept the agreement and continue with the installation.
To decline the agreement and exit the installation, click **No**.
The “IntraSpection Personality Module Read Me” window appears. Review the information carefully.
- 8 Click **Next** to continue.
The decompressed Personality Module files are installed onto your computer.
The “Decompression of the Source is Now Complete” dialog box appears.
- 9 Click **OK** to continue with the installation.
The “Select Module to Install” window appears, displaying the IntraStack.ipm file. See Figure 2-1.



Figure 2-1 Select Module to Install window

- 10 Click once on the **IntraStack.ipm** file.
- 11 Click **Open**.
The “Enter Product Serial Number” window appears.
- 12 Enter the serial number that came with your copy of the Personality Module.
The serial number is located on the inside cover of this User’s Manual.
▲ Important: The serial number is case-sensitive; enter it exactly as shown.

13 Click **OK**.

The “IntraSpection Module Installation” window appears.

▲ **Important:** This window should be pointing to the directory that contains the IntraSpection (websuite.exe) program. If it is not, click **Browse** and locate that directory.

14 Click **OK**.

Δ **Note:** A “Select Database” window may appear. If it does, select **vendor.mdb**, then click **OK**.

Δ **Note:** An “Updating IntraSpection System Files” window may appear, if it does, click **OK**.

The installer program installs the IntraStack 6000 Series Personality Module into the IntraSpection Application Server.

Installation is complete when the “Installation Completed Successfully” dialog box appears.

15 Start the IntraSpection Application Server, following the guidelines below:

- ☐ Windows NT 3.51 users: double-click the **IntraSpection** icon (located in the Programs group).
- ☐ Windows NT 4.0 users: open the **Start** menu, select **Programs**, then **IntraSpection**.

For information on accessing the IntraStack for management, see Chapter 3, “Accessing the Device.”

3

Accessing the Device

This chapter explains how to access the IntraStack 6000 Series Personality Module's **Device Page**. The Device Page provides access to the Personality Module's management options.

Accessing the Device Page

To access the Device Page for an IntraStack, you must first create a map of the network in IntraSpection.

- 1 Make sure the Personality Module is installed and the IntraSpection Application Server is running.
- 2 Access IntraSpection from any Java-enabled Web browser (requires logging into IntraSpection).

▲ **Important:** For help on accessing and logging into IntraSpection, refer to the [IntraSpection User's Manual](#).

- 3 After you are logged into IntraSpection, click **Auto-Discovery** on the IntraSpection Main Menu.

The AutoDiscovery Page appears.

- 4 Complete each field on the AutoDiscovery Page, following the guidelines below:

- ☐ Type the IP subnet address of the IntraStack to be managed in the **Segment** field.
- ☐ Type the IntraStack's community string in the **Community** field.
- ☐ Make sure the **Enterprise ID** field has a value of **all**.

- ☐ Type the lowest (beginning) IP address on your network in the **Low IP Address** field.
- ☐ Type the highest (last) IP address on your network in the **Hi IP Address** field.
- ☐ Select **New** in the **Discovery Mode** field to create a new map, or select **Append** to attach this map to the map that is stored in your system's buffer (if any).

5 Click **Apply**.

IntraSpection builds a map of your network. The map contains icons that represent each “discovered” SNMP device on the network. Figure 3-1 is an example map.

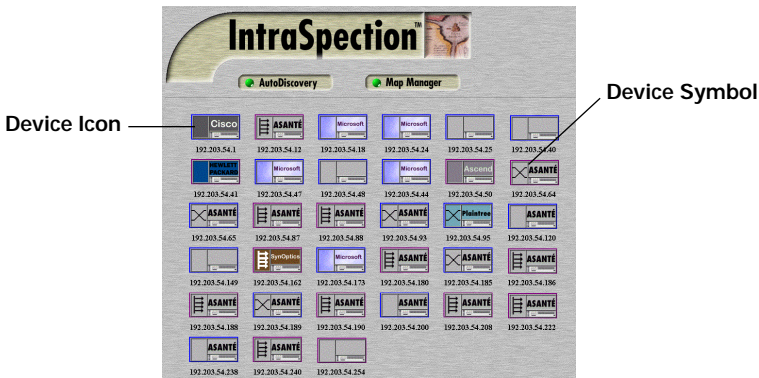


Figure 3-1 Discovered network map

6 After the map is complete, click the **map** icon (located at the bottom of the page on the navigation bar) to validate the devices on the map.

- Δ **Note:** The devices on the map are validated when device symbols appear on certain icons.

7 Click once on the IntraStack 6000 Series's icon.

- Δ **Note:** This icon is labeled “**Asanté**” and has the IntraStack 6000 Series's IP address below it.

The Device Page for the IntraStack appears (see Figure 3-2 on page 3-3).

For information on the Device Page's components, see “Device Page Components” on page 3-3.

Device Page Components

A Personality Module's Device Page consists of several components; including, device information, a front panel image, and management menu items. See Figure 3-2.

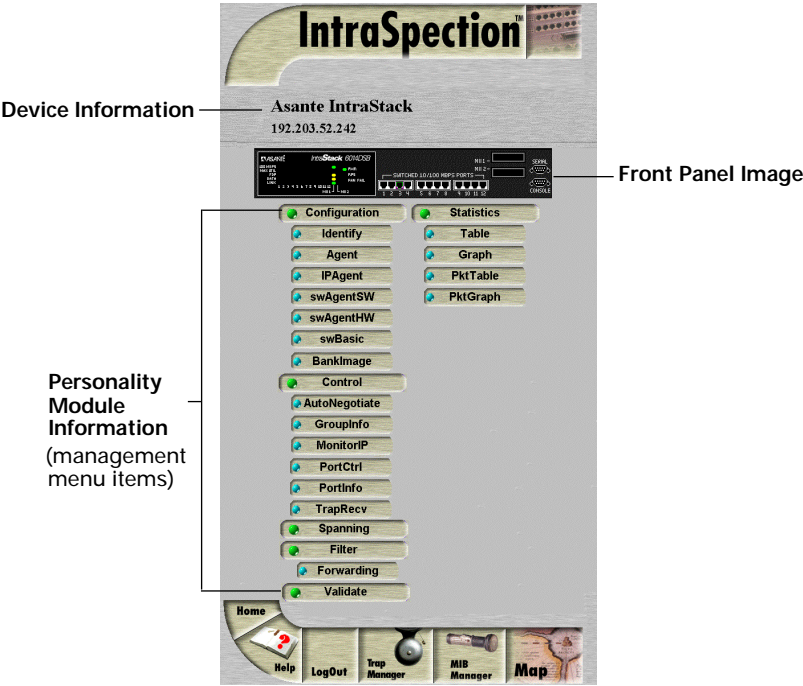


Figure 3-2 Device Page components

Device Information

The following information is displayed at the top of the Device Page:

- ☐ Device description (i.e., **Asanté IntraStack**)
- ☐ Device IP address

Front Panel Image

The front panel image contains the following components (as illustrated in Figure 3-3):

- ❑ **Device** — the entire IntraStack 6000 Series switching system (includes the IntraStack 6014DSB and any installed expansion units).
- ❑ **Group** — each unit (module) within the device (such as the IntraStack 6014DSB).
- ❑ **Port** — each port (including MII ports) on each group.
- ❑ **Status LEDs** — real-time LEDs that represent the LEDs on the modules; they display port activity.

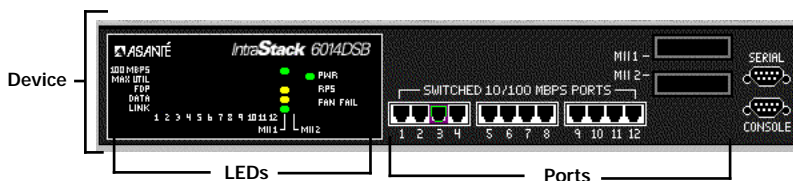


Figure 3-3 Front panel image components

- ▲ **Important:** Throughout this manual, the term **device** refers to the IntraStack 6014DSB and any installed expansion units; the term **group** refers to an individual module within the device stack; the term **port** refers to an individual port.

Group Numbering

For management purposes, each group within a device is assigned a number:

- ❑ The bottom module (IntraStack 6014DSB) is group 1
- ❑ The next module up is group 2
- ❑ The top module is group 3

Port Numbering

Each port is assigned a number.

- ❑ Ports 1 – 12 on the IntraStack 6014DSB are referred to as ports 1 – 12.
- ❑ MII (Media Independent Interface) ports I and II are referred to as 13 and 14, respectively.

Selecting the Device for Management

The IntraStack can be managed at different levels; that is, at the device, group, or port level.

For example, if a group (such as the IntraStack 6014DSB base unit) is selected and you select the **Graph** menu, statistics for that group are displayed. If a port is selected and you select **Graph**, statistics for that port are displayed.

Selecting an Item

Target Item	Action
Device (entire stack)	Do not click anything on the front panel image.
Group (single module)	Click once on the group.
Port	Click once on the port.

Deselecting an Item

Target Item	Action
Device	Click once on a group or port.
Group	Click again on the selected group.
Port	Click again on the selected port.

Menu Components

The menus on the IntraStack 6000 Series Device Page provide access to the different management options supported by the Personality Module.

Tables

Some menus contain tables with information that is configurable directly on-screen from your Web browser while others contain information that is read-only. The following tables describe how to recognize configurable and read-only information.

Configurable Information

Menu item	Action
Drop-down menu	Select from an available option.
White-colored fields	Type information.

Read-only Information

Menu item	Action
Green- or gray-colored fields	None; field cannot be edited.

Table Columns

Some menus contain table columns that can be resized to fit the width of your screen. To resize a table column, place the mouse pointer on a column title's left or right side (until a double arrow appears) and drag the column to the left or to the right, as desired.

Buttons

Some menus contain buttons which allow you to edit/and or update the page.

Button	Action
Apply	Applies any changes made to the device.
Refresh	Updates the table with the latest information.
Modify	Modifies a selected entry.
Add	Adds an entry into the table.

Management

Performing Basic Management Functions

This chapter explains how to perform some basic management functions with the IntraStack 6000 Series Personality Module.

- ▲ **Important:** The tasks outlined in this chapter require access to the IntraStack's Device Page. See Chapter 3, "Accessing the Device," for instructions.

This chapter covers the following configuration and management tasks:

Configuration Tasks

Management Task	Page
Setting community strings	page 4-3
Configuring IP information	page 4-5
Configuring out-of-band information	page 4-6
Configuring bootstrap parameters	page 4-7
Configuring device identification information	page 4-8

Management Tasks

Management Task	Page
Updating the Device Page	page 4-9
Viewing port parameters	page 4-10
Configuring port parameters	page 4-11
Enabling or disabling a port	page 4-14

Management

Management Task	Page
Resetting the IntraStack	page 4-15
Managing trap receivers	page 4-16
Viewing the port address table	page 4-18
Performing a software upgrade	page 4-20
Downloading a configuration file	page 4-23
Configuring Telnet idle time-out	page 4-25
Configuring the Spanning Tree Protocol	page 4-26
Viewing counter statistics (table and graph formats	page 4-30
Viewing packet statistics (table and graph) formats	page 4-33

Setting Community Strings

Community strings define access rights for reading and writing SNMP data objects for a device.

The community strings (read and write) for an IntraStack are manually set in the IntraStack 6014DSB via the unit's console port.

In order to access an IntraStack with IntraSpecion, the community strings must be set in IntraSpecion to match those set in the IntraStack 6014DSB.

- ▲ **Important:** It is recommended that you set the community strings for an IntraStack 6014DSB in IntraSpecion **before** you attempt to perform any network management functions.

This section describes how to set the community strings in IntraSpecion to match those set in the IntraStack 6014DSB.

To set the community strings in IntraSpecion:

- 1 On the Device Page, click the **map** icon on the IntraSpecion navigation bar (located at the bottom of the screen), as shown in Figure 4-1.



Figure 4-1 IntraSpecion navigation bar

The most recently discovered map appears.

- 2 Click the **Map Manager** button.

The Map Manager Page appears, similar to Figure 4-2.



Figure 4-2 IntraSpection Map Manager Page

3 Click the **Edit Device** button.

The Map Configuration table appears, similar to Figure 4-3.

Map Configuration Table	
IP Address	<input type="text"/>
Read Community String	<input type="text"/>
Write Community String	<input type="text"/>
Alias Name	<input type="text"/>

Figure 4-3 Map Configuration table

4 Enter the IntraStack 6014DSB's IP address in the **IP Address** field.

5 Enter the IntraStack 6014DSB's read community string in the **Read Community String** field.

6 Enter the IntraStack 6014DSB's write community string in the **Write Community String** field.

7 Click **Apply**.

The read and write community strings for the IntraStack 6014DSB are configured.

Configuring IP Information

To configure and/or manage an IntraStack over the network, the IntraStack 6014DSB needs to be properly configured with IP information (such as the device's IP address, subnet mask, and default gateway address).

This information is initially set-up in the IntraStack 6014DSB via the unit's console port; however, some information can be modified using IntraSpection.

To configure the IntraStack 6014DSB's IP information:

- 1 Do not select any item on the Device Page's front-panel image. (This selects the entire device.)
- 2 Click **IPAgent**.

The IP Agent Protocol Group table appears, similar to Figure 4-4.

IP Agent Protocol Group	
192.203.52.242: IntraStack	
IP Agent	
IP Address	192.203.52.242
Subnet Mask	255.255.255.0
Default Gateway	192.203.52.1
IntraStack	192.203.52.198
IntraStack	0.0.0.0
Time	
Date	11/11/2006
Time	10:10:10
Time Out	30
<input type="button" value="Apply"/> <input type="button" value="Refresh"/>	

Figure 4-4 IP Agent Protocol Group table

- 3 Click once in the IP Agent field to be edited.
 - ▲ **Important:** Only those fields that are colored white can be edited.

For a description of each field, see “IP Agent “ on page 5-7.

- 4 Type the new information.
- 5 Click **Apply**.

The IntraStack's IP information is configured. Click **Refresh** to view updated information.

Configuring Out-of-Band Information

You can configure an IntraStack's out-of-band parameters (i.e., the dial-string and baud rate) via the **Agent** menu.

To configure an IntraStack's out-of-band information:

- 1 Do not select any item on the Device Page's front-panel image. (This selects the entire device.)
- 2 Click **Agent**.

The Agent Information table appears, similar to Figure 4-5.

Agent Information Table
192.203.54.65:

Software	
SWVersion Major	1
SWVersion Minor	0
Image Load Mode	localBoot
Remote Boot	
Method	seepromBootInfo
Protocol	other
File	other
Out-Of-Band	
Dial String	
Baud Rate	19600
Hardware	
Revision	0
Model No.	0
Firmware	
FWVersion Major	2
FWVersion Minor	0

APPLY REFRESH

Figure 4-5 Agent Information table

Δ **Note:** For a description of each field, see “Agent” on page 5-5.

- 3 To change the IntraStack's out-of-band dial string, click once in the **Dial String** field and type the dial string.
- 4 To change the IntraStack's out-of-band baud rate, open the **Baud Rate** drop-down menu and select a new baud rate.
- 5 Click **Apply**.

The IntraStack 6014DSB's out-of-band information is configured.

Click **Refresh** to view updated information.

Configuring Bootstrap Parameters

You can determine the method (local or remote) that the IntraStack uses to load its software at startup or during a reset via the **Agent** menu.

To configure the IntraStack's bootstrap parameters:

1 Do not select any item on the Device Page's front-panel image. (This selects the entire device.)

2 Click **Agent**.

The Agent Information table appears, similar to Figure 4-5 on page 4-6.

Δ **Note:** For a description of each field, see "Agent" on page 5-5.

3 Open the **Image Load Mode** field and select one of the following options:

- ☐ **localBoot** — sets the IntraStack 6014DSB to execute its software image file from its internal flash memory.
- ☐ **netBoot** — sets the IntraStack 6014DSB to load its software image file from a server on the network.

4 Click **Apply**.

The IntraStack 6014DSB's bootstrap parameters are configured.

Configuring Device Identification Information

To help with identification, you can add certain details about the IntraStack; such as, the device’s name, location, and contact information.

To configure device identification information:

- 1 Do not select any item on the Device Page’s front-panel image. (This selects the entire device.)
- 2 Click **Identify**.

The Device Identification table appears, similar to Figure 4-6.

The screenshot shows a web interface titled "Device Identification" with the IP address "192.203.52.242: IntraStack". Below the title is a table with fields for device information. The fields are organized into sections: "General", "Name", "Location", "Contact", "Up Time", "Configuration", and "Status". The "General" section includes fields for "Model", "Serial ID", "Firmware", and "IntraStack ID". The "Name" section includes "Name". The "Location" section includes "Location". The "Contact" section includes "Contact". The "Up Time" section includes "Up Time". The "Configuration" section includes "Configuration". The "Status" section includes "Status". The table has a blue header and a blue border. The fields are white with black text. The "Identify" button is highlighted in blue.

Device Identification	
192.203.52.242: IntraStack	
General	
Model	10000000000000000000
Serial ID	10000000000000000000
Firmware	10000000000000000000
IntraStack ID	10000000000000000000
Name	
Name	10000000000000000000
Location	
Location	10000000000000000000
Contact	
Contact	10000000000000000000
Up Time	
Up Time	10000000000000000000
Configuration	
Configuration	10000000000000000000
Status	
Status	10000000000000000000

Figure 4-6 Device Identification table

- 3 Click once in the **Name**, **Location** or **Contact** field to be edited.

△ **Note:** For a description of all the fields, see “Identify” on page 5-4.

▲ **Important:** Only those fields that are colored white can be edited.

- 4 Type the new information.

A maximum of 254 characters (including spaces) is allowed.

- 5 Click **Apply**.

The IntraStack’s identification information is configured.

Click **Refresh** to view updated information.

Updating the Device Page

The files for the IntraStack 6000 Series Personality Module are stored within the IntraSpection Application Server's database.

Occasionally, these files should be updated from the Device Page to ensure that you are viewing the IntraStack's latest information.

To update the Personality Module's Device Page:

1 Click **Validate**.

The Device Page is updated with the latest information for the Personality Module.

After the Device Page is updated, the IntraSpection Map Manager Page appears.

2 Click **AutoDiscovery** to rediscover the network map containing the IntraStack.

▲ **Important:** See "Accessing the Device Page" on page 3-1 for instructions creating a network map.

Viewing Port Parameters

You can view information about each port within an IntraStack switching system via the **PortInfo** menu.

The **PortInfo** (Port Information) menu displays the type of each port as well as the port's auto-negotiation status, link status, speed, and duplex mode.

To view port parameters:

- 1 Click **PortInfo**.

You do not have to select any particular port on the front-panel image.

The Port Information table appears, similar to Figure 4-7.

Port Info Table						
192.203.52.242: IntraStack						
GrpIndex	Index	Port Type	AutoNeg	Link	Port Speed	Port Duplex
1	1	RJ45	with	Down	other	other
1	2	RJ45	with	Down	other	other
1	3	RJ45	with	Down	other	other
1	4	RJ45	with	Down	other	other
1	5	RJ45	with	Down	other	other
1	6	RJ45	with	Down	other	other
1	7	RJ45	with	Down	other	other
1	8	RJ45	with	Down	other	other
1	9	RJ45	with	Down	other	other
1	10	RJ45	with	Down	other	other
1	11	RJ45	with	Down	other	other
1	12	RJ45	with	Down	other	other
1	13	MLL_RJ45	without	Up	100_Mbps	Full_Duplex
1	14	MLL_RJ45	without	Down	other	other
Refresh						
Complete						

Figure 4-7 Port Information table

The table displays information about each of the IntraStack's ports.

Each port is identified by its group number (**GrpIndex**) and its port number (**Index**).

Δ **Note:** For a description of each field, see “Port-Info” on page 5-21.

- 2 Click **Refresh** to view updated information.

Configuring Port Parameters

You can configure each port within an IntraStack for the following:

- ☐ Auto-negotiation
- ☐ Broadcast filtering
- ☐ Store-and-forwarding

▲ **Important:** You cannot configure a port's duplex mode via the Personality Module.

Configuring Auto-Negotiation

Auto-negotiation allows two devices on a common segment to communicate their capabilities, allowing the devices to determine their highest common speed and best communication parameters.

The options negotiated during auto-negotiation are: Ethernet type (100Base-TX or 10Base-T) and duplex mode (half or full).

▲ **Important:** To use auto-negotiation, both devices must support the auto-negotiation feature.

To configure a port for auto-negotiation:

- 1 Click **AutoNegotiate**.

You do not have to select any particular port on the front-panel image.

The Port Auto-Negotiation table appears, similar to Figure 4-8.

PortNumber	PortName	AdminState	Personality	AutoNegot	LinkStatus	AutoNegotStatus	NegotiatedStatus	NegotiatedSpeed
1	enrolled	enrolled	configured	10.00	10.00	10.00	negotiated	negotiated
2	enrolled	enrolled	configured	10.00	10.00	10.00	negotiated	negotiated
3	enrolled	enrolled	configured	10.00	10.00	10.00	negotiated	negotiated
4	enrolled	enrolled	configured	10.00	10.00	10.00	negotiated	negotiated
5	enrolled	enrolled	configured	10.00	10.00	10.00	negotiated	negotiated
6	enrolled	enrolled	configured	10.00	10.00	10.00	negotiated	negotiated
7	enrolled	enrolled	configured	10.00	10.00	10.00	negotiated	negotiated
8	enrolled	enrolled	configured	10.00	10.00	10.00	negotiated	negotiated
9	enrolled	enrolled	configured	10.00	10.00	10.00	negotiated	negotiated
10	enrolled	enrolled	configured	10.00	10.00	10.00	negotiated	negotiated
11	enrolled	enrolled	configured	10.00	10.00	10.00	negotiated	negotiated
12	enrolled	enrolled	configured	10.00	10.00	10.00	negotiated	negotiated
13	enrolled	enrolled	configured	10.00	10.00	10.00	negotiated	negotiated
14	other	other	other	10.00	10.00	10.00	negotiated	negotiated

Figure 4-8 Port Auto-Negotiation table

- 2 Click once on the row of the port you want to configure.

The ports are identified by their group number (**GrpIndex**) and port number (**PortIndex**).

Δ **Note:** For a description of each field, see “Auto Negotiate” on page 5-15.

- 3 Click **Modify**.

The “Modify Dialog” box appears.

- 4 Open the **Admin State** drop-down menu and select **enable**.

- 5 Click **Apply**.

The port is configured for auto-negotiation.

Configuring Broadcast Filtering

Broadcast filtering is a port’s ability to control the forwarding of broadcast packets.

If enabled, broadcast packets are discarded. If disabled, broadcast packets are processed normally.

To configure a port’s broadcast filtering ability:

- 1 Click **PortCtrl**.

You do not have to select any port on the front-panel image.

The Port Control table appears.

- 2 Click once on the row of the port you want to configure.

- 3 Click **Modify**.

The “Modify Dialog” box appears.

- 4 Open the **Filter** drop-down menu and select **Enable**.

- 5 Click **Apply**.

The port is configured for broadcast filtering.

Configuring Store-and-Forwarding

Store-and-forwarding is a port's ability to store incoming packets before forwarding them.

To configure a port's store-and-forwarding ability:

- 1 Click **PortCtrl**.
You do not have to select any port on the front-panel image.
The Port Control table appears.
- 2 Click once on the row of the port you want to configure.
- 3 Click **Modify**.
The "Modify Dialog" box appears.
- 4 Open the **StNFw** drop-down menu and select **Enable**.
- 5 Click **Apply**.
The port is configured for store-and-forwarding.

Enabling or Disabling a Port

The enabling or disabling of a port is a manual operation that can be used to isolate network devices possibly causing problems on the network. It can also be used to prevent unauthorized use of a port or station.

To enable or disable a port:

- 1 Click **PortCtrl**.

You do not need to select any particular item on the front-panel image.

The Port Control table appears, similar to Figure 4-9.

Group	Port	State	Filter	IntraFw	STP
1	1	Disable	Disable	Disable	Disable
1	2	Disable	Disable	Disable	Disable
1	3	Disable	Disable	Disable	Disable
1	4	Disable	Disable	Disable	Disable
1	5	Disable	Disable	Disable	Disable
1	6	Disable	Disable	Disable	Disable
1	7	Disable	Disable	Disable	Disable
1	8	Disable	Disable	Disable	Disable
1	9	Disable	Disable	Disable	Disable
1	10	Disable	Disable	Disable	Disable
1	11	Disable	Disable	Disable	Disable
1	12	Disable	Disable	Disable	Disable
1	13	Disable	Disable	Disable	Disable
1	14	Disable	Disable	Disable	Disable

Refresh Apply

Figure 4-9 Port Control table

Δ **Note:** For a description of each field, see “Port Ctrl” on page 5-19.

- 2 Select the port to be enabled or disabled by clicking once on the port’s row.
- 3 Click **Modify**.

The “Modify Dialog” box appears.

- 4 Open the **State** drop-down menu and select **Enable** (to enable the port) or **Disable** (to disable the port).
- 5 Click **Apply**.

The port’s state is modified. Click **Refresh** to view updated information.

Resetting the IntraStack

You can reset the entire IntraStack device or a selected group via the **Reset** menu.

To perform a reset:

- 1 To reset the device, do not select anything on the front-panel image.

To reset a group, click once the group.

- 2 Click **Reset**.

The Reset table appears for the agent or a selected group, similar to Figure 4-10 or Figure 4-11.

Figure 4-10 Reset Agent table (device reset)

Figure 4-11 Reset Group table (group reset)

- 3 Open the **Action** drop-down menu and select **reset**.
- 4 Click **Apply**.

The IntraStack 6000 Series switch (or the selected group) is reset.

▲ **Important:** To abort the reset, click on the browser's back arrow to go back one page.

Managing Trap Receivers

Trap receivers are the network management stations designated to receive traps from the IntraStack when they occur.

▲ **Important:** A maximum of **four** trap receivers is allowed.

This section describes how to add and delete a trap receiver.

To add a trap receiver entry:

- 1 Do not select any item on the Device Page's front-panel image. (This selects the entire device.)
- 2 Click **TrapRecv**.

The Trap Receiver table appears, similar to Figure 4-12.

Status	Trap Receiver Address	Community String
--------	-----------------------	------------------

Figure 4-12 Trap Receiver table

△ **Note:** For a description of each field, see “Trap Recv” on page 5-22.

If there are no entries, the table is blank.

- 3 Click **Add**.
The Add Dialog box appears.
- 4 Open the **Status** drop-down menu and select **valid**.
- 5 Type the IP address of the management station that is to receive traps in the **Trap Receiver Address** field.

▲ **Important:** Do NOT type an IP address of 0.0.0.0.

- 6 Type the community string for the management station in the **Community String** field.
- 7 Click **Apply**.
The entry for the management station is added and appears in the table. If it does not appear, click **Refresh**.

Deleting a Trap Receiver Entry

To delete a trap receiver entry:

- 1 Click once on the row containing the entry to be deleted.
- 2 Click **Modify**.
The “Modify Dialog” box appears.
- 3 Open the **Status** drop-down menu and select **invalid**.
- 4 Click **Apply**.
The trap receiver’ entry is deleted.
Click **Refresh** to view updated information.

Modifying a Trap Receiver Entry

To change the IP address of a trap receiver entry:

- 1 Delete the trap receiver entry, following the directions above.
- 2 Add a new trap receiver entry, following the instructions on page 4-16.
The trap receiver entry’s IP address is changed.
Click **Refresh** to view updated information.

Viewing the Port Address Table

The IP Address Monitoring Table is a table of node addresses that the IntraStack automatically builds by listening to and learning the information that is broadcast when a new node logs on.

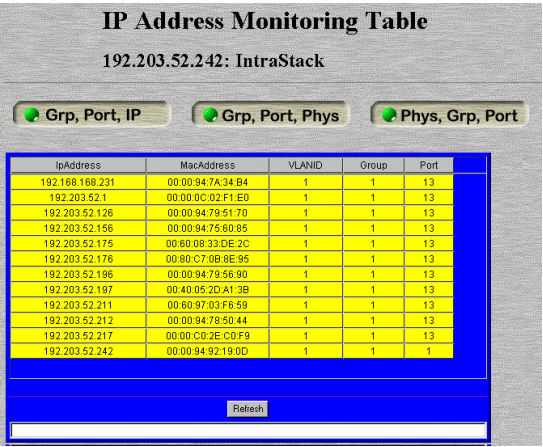
The IntraStack checks the source and destination addresses as packets pass through it and records the source address information in the table.

The IntraStack uses the information in this table to decide whether a frame should be forwarded or filtered. Each entry consists of the MAC address of the device and an identifier for the port on which it was received.

To view the IntraStack's IP address table:

- 1 Do not select any item on the front-panel image. (This selects the entire device).
- 2 Click **MonitorIP**.

The IP Address Monitoring table appears, similar to Figure 4-13.



IpAddress	MacAddress	VLANID	Group	Port
192.168.168.231	00:00:94:7A:34:B4	1	1	13
192.203.52.1	00:00:0C:02:F1:E0	1	1	13
192.203.52.126	00:00:94:79:51:70	1	1	13
192.203.52.156	00:00:94:75:60:85	1	1	13
192.203.52.175	00:60:08:33:DE:2C	1	1	13
192.203.52.176	00:60:C7:0B:8E:95	1	1	13
192.203.52.196	00:00:94:79:56:90	1	1	13
192.203.52.197	00:40:05:2D:A1:3B	1	1	13
192.203.52.211	00:60:97:03:F6:59	1	1	13
192.203.52.212	00:00:94:78:50:44	1	1	13
192.203.52.217	00:00:C0:2E:C0:F9	1	1	13
192.203.52.242	00:00:94:92:19:0D	1	1	1

Figure 4-13 IP Address Monitoring table

The table automatically sorts entries numerically by their IP address.

You can change the sorting order in which information is displayed by click once on one of the following buttons:

- ☐ **Grp, Port, IP** — sorts by group number, port number, then IP address.
 - ☐ **Grp, Port, Physical** — sorts by group number, port number, then physical address.
 - ☐ **Phys, Grp, Port** — sorts by physical address, group number, then port number.
- △ **Note:** The information displayed in the IP Address Monitoring Table is read-only.
- △ **Note:** For a description of each field, see “Monitor IP” on page 5-18.

3 Click **Refresh** to view updated information.

Performing a Software Upgrade

An IntraStack's software image file can be upgraded via IntraSpection.

To upgrade an IntraStack's software image file requires two steps:

- ☐ Set up the IntraStack 6014DSB's boot information.
- ☐ Configure the image file information.

Set up the Boot Information

To set up the IntraStack 6014DSB's boot information:

- 1 Click **Agent**.
The Agent Information table appears.
- 2 Open the **Image Load Mode** drop-down menu and select **netBoot**.
This sets the IntraStack 6014DSB to boot (download its software) over the network from a remote server.
- 3 Open the **Protocol** drop-down menu and select **bootp-tftp** or **tftp**.
This sets the IntraStack to download the software image file through TFTP (trivial transfer file protocol).
- 4 Click once in the **File** field and type the name and network path of the software image file.
- 5 Click **Apply**.
The IntraStack's boot information is configured. Next, configure the image file information following the instructions below.

Configure the Image File Information

- 1 Click **swAgentSW**.
The Switch Agent Software Group table appears, similar to Figure 4-14.

Field	Value
Up/Download Action	Up
Up/Download Status	Up_Active
Download File	File
Config Server	10.0.0.0
Config Filename	
Config Pathname	
Image Server	192.103.52.196
Image Pathname	
Active Image Bank	Bank1
Download Bank	Bank2
Reset Mail	
Reset Lock	1.000.000
Timeout	4
Timeout Active	0
Timeout TimeOut	1.0
GTP	0.0000

Figure 4-14 Switch Agent Software Group table

Δ **Note:** For a description of each field, see “swAgentSW” on page 5-9.

- 2 Open the **Up/Download Action** drop-down menu and select **Download**.
- 3 Open the **Download File** drop-down menu and select **Image-File**.
- 4 Type the server’s IP address where the software file resides in the **Image Server** field.
- 5 Type the name and network path of the image file in the **Image File Name** field.
- 6 Type the number of attempts the IntraStack will make to download the file in the **Image Retries** field.
- 7 Open the **Active Image Bank** drop-down menu and select the image bank that will receive the downloaded image file.

Δ **Note:** The IntraStack 6014DSB has two image areas (or “banks”) where its runtime software is stored:

- ❑ **Active Image Bank** — the bank that is used during the system boot-up (also referred to as “Boot Bank”)
- ❑ **Download Bank** — the bank that receives the new version of runtime code when it is downloaded (also referred to as “Destination Bank”).

8 Click **Apply**.

The IntraStack downloads the image file to the image bank specified.

Click **Refresh** to view updated information.

Downloading a Configuration File

The IntraStack's configuration file can be downloaded to the device via IntraSpection.

To download a configuration file:

- 1 Make sure the IntraStack is configured with valid boot information.
See "Set up the Boot Information" on page 4-20 for instructions.
- 2 Click **swAgentSW**.
The Switch Agent Software Group table appears.
- 3 Open the **Up/Download Action** drop-down menu and select **Download**.
- 4 Open the **Download File** drop-down menu and select **Config-File**.
- 5 Type the server's IP address where the configuration file resides in the **Config Server** field.
- 6 Type the name of the configuration file in the **Config File Name** field.
- 7 Type the number of attempts the IntraStack will make to download the file in the **Config Retries** field.
- 8 Open the **Active Image Bank** drop-down menu and select the image bank that will receive the downloaded configuration file.
 - △ **Note:** The IntraStack 6014DSB has two image areas (or "banks") where its runtime software is stored:
 - ☐ **Active Image Bank** — the bank that is used during the system boot-up (also referred to as "Boot Bank")
 - ☐ **Download Bank** — the bank that receives the new file when it is downloaded (also referred to as "Destination Bank").

9 Click **Apply**.

The IntraStack downloads the configuration file to the image bank specified.

Click **Refresh** to view updated information.

Configuring Telnet Idle Time-Out

You can configure the amount of time an idle Telnet connection to the IntraStack remains active via the **swAgentSW** menu.

If a Telnet connection to the IntraStack remains idle for the number of specified time-out minutes, the remote Telnet connection to the IntraStack is automatically disabled.

To configure the IntraStack's Telnet idle time-out:

- 1 Do not select anything on the front-panel image. (This selects the entire device).
- 2 Click **swAgentSW**.

The Switch Agent Software Group table appears, similar to Figure 4-15.

The screenshot shows a web-based configuration interface for the 'Switch Agent Software Group' on the device '192.203.52.242: IntraStack'. The interface has a blue background and a white table with various configuration fields. At the bottom, there are 'APPLY' and 'REFRESH' buttons.

Switch Agent Software Group	
192.203.52.242: IntraStack	
Software	
Up/Download Action	Off
Up/Download Status	No Action
Download File	other
Config Server	0.0.0.0
Config FileName	
Config Retries	5
Image Server	192.203.52.196
Image Retries	5
Active Image Bank	Bank1
Download Bank	Bank2
Reset Wait	0
Reset Left	2,328,372
Telnets	4
Telnets Active	0
Telnet TimeOut	20
STP	Disable

APPLY REFRESH

Figure 4-15 Switch Agent Software Group table

△ **Note:** For a description of each field, see “swAgentSW” on page 5-9.

- 3 Type the number of minutes for the time-out period in the **Telnet TimeOut** field.
- 4 Click **Apply**.

The Telnet idle time-out period is configured.

Configuring the Spanning Tree Protocol

The IntraStack is shipped with SpanningTree **enabled** on all ports.

You can disable or enable SpanningTree on the IntraStack or on an individual port. You can also configure the SpanningTree parameters on the IntraStack.

- ▲ **Important:** Do **not** enable, disable, or configure the SpanningTree Parameters unless you have knowledge and experience with the IEEE 802.1d specification.

Disabling or Enabling Spanning Tree

You can disable or enable SpanningTree on the IntraStack or on an individual port.

To disable or enable SpanningTree on the IntraStack:

- 1 Click **swAgentSW**.
The Switch Agent Software Group table appears.
- 2 Open the **STP** drop-down menu and select **Disable** (to disable SpanningTree on the IntraStack) or **Enable** (to enable SpanningTree on the IntraStack).
- 3 Click **Apply**.
SpanningTree is disabled (or enabled) on the IntraStack.

To disable or enable SpanningTree on a port:

- 1 Click **PortCtrl**.
The Port Control table appears, similar to Figure 4-16.

Port Control Table					
192.203.52.242: IntraStack					
Group	Port	State	Filter	STPFW	STP
1	1	Disable	Disable	Enable	Disable
1	2	Disable	Disable	Enable	Disable
1	3	Disable	Disable	Enable	Disable
1	4	Disable	Disable	Enable	Disable
1	5	Disable	Disable	Enable	Disable
1	6	Disable	Disable	Enable	Disable
1	7	Disable	Disable	Enable	Disable
1	8	Disable	Disable	Enable	Disable
1	9	Disable	Disable	Enable	Disable
1	10	Disable	Disable	Enable	Disable
1	11	Disable	Disable	Enable	Disable
1	12	Disable	Disable	Enable	Disable
1	13	Disable	Disable	Enable	Disable
1	14	Disable	Disable	Enable	Disable

Refresh Modify

Complete

Figure 4-16 Port Control table

- 2 Select the port you want to disable or enable Spanning Tree on by clicking once on its row.
- 3 Click **Modify**.
The “Modify Dialog” box appears.
- 4 Open the **STP** drop-down menu and select **Disable** (to disable Spanning Tree on the port) or **Enable** (to enable Spanning Tree on the port).
- 5 Click **Apply**.
Spanning Tree is disabled (or enabled) on the selected port.

Configuring Spanning Tree Parameters

To configure the SpanningTree Parameters on the IntraStack:

- ▲ **Important:** Do **not** change any of the SpanningTree parameters unless you have knowledge and experience with the IEEE 802.1d specification.

- 1 Do not select any item on the front-panel image. (This selects the entire device.)
- 2 Click **Spanning**.

The SpanningTree Device table appears, similar to Figure 4-17.

The screenshot shows a web interface titled "Spanning Tree Device" with the IP address "192.203.52.242: IntraStack". Below the title is a table with three sections: Spanning Tree, Bridge, and Topology. Each section contains several parameters with their current values.

Spanning Tree	
Protocol Specification	IEEE802.1d
Priority	128
Designated Root	08:00:00:00:00:00
Root Cost	0
Root Port	0
Maximum Age	0
hello Time	0
Forward Delay	15

Bridge	
Bridge Maximum Age	0
Bridge Hello Time	0
Bridge Forward Delay	0

Topology	
Time Since Topology Change	18:20:21:10
Number Topology Changes	0

At the bottom of the table are two buttons: "APPLY" and "RETURN".

Figure 4-17 SpanningTree Device table

- △ **Note:** For a description of each field, see “Spanning” on page 5-23.
- 3 Within this table, you can configure the following information:
 - ☐ **Spanning Tree Priority**
 - ☐ **Bridge Maximum Age**
 - ☐ **Bridge Hello Time**
 - ☐ **Bridge Forward Delay**
 - 4 Click once in the SpanningTree parameter field to be modified.

5 Type the new information.

6 Click **Apply**.

The SpanningTree parameters on the IntraStack are configured.

Click **Refresh** to view updated information.

Viewing Statistics

There are two groups of statistics with the IntraStack 6000 Series Personality Module:

- ☐ Counter Statistics (such as broadcast packets, fragments, and collisions)
- ☐ Packet Statistics

Both groups of statistics can be viewed in two different formats: table or graph.

▲ **Important:** Statistics are available at the port-level only.

This section describes how to view counter and packet statistics in both table and graph formats.

Viewing Counter Statistics (Table Format)

To view counter statistics in a table format:

1 Select a port for which statistics are to be gathered by clicking on it once..

▲ **Important:** Statistics can be viewed at the port-level only.

2 Click **Table**.

Counter statistics appear for the selected port, similar to Figure 4-18.



Port Statistics Table
192.283.54.64: IntraStack
Port: 2

Sampling Interval (seconds): 5 RESET

Object	Count	Peak	Avg	Total
packets sent	1156	1156	1156	143894.511
packets received	0	0	0	202.076
packets sent collision	0	0	0	0.0
packets received collision	0	0	0	202.076
packets sent error	0	0	0	0.0
packets received error	0	0	0	0.0
packets sent fragment	0	0	0	0.0
packets received fragment	0	0	0	0.0
packets sent error	0	0	0	0.0
packets received error	0	0	0	0.0
packets sent error	0	0	0	0.0

Refreshing

Figure 4-18 Counter Statistics (table format)

For a description of each object, see “Objects” on page 5-27.

- 3 Open the **Sampling Interval** drop-down menu and select the number of seconds to poll for statistics.

Statistics are automatically gathered at the selected interval in the following columns:

- ☐ **Curr** — (current) the number of occurrences each second.
- ☐ **Peak** — the largest number of occurrences since opening or resetting the screen.
- ☐ **Avg** — (average) the average number of occurrences since opening or resetting the screen.
- ☐ **Total** — the total number of occurrences since opening or resetting the screen.

- 4 Click **Reset** to reset the counters to zero.

Viewing Counter Statistics (Graph Format)

To view counter statistics in a graph format:

- 1 Select a port for which statistics are to be gathered by clicking on it once on the front-panel image.
 - ▲ **Important:** Statistics can be viewed at the port-level only.
- 2 Click **Graph**.

Counter statistics appear for the selected port, similar to Figure 4-19.

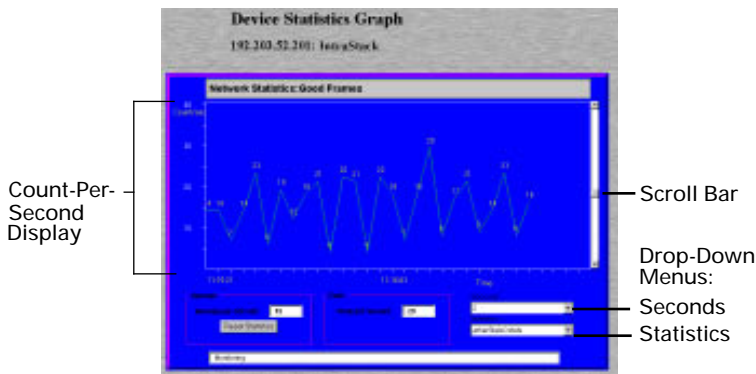


Figure 4-19 Counter Statistics (graph format)

- 3 Open the **Statistics** drop-down menu and select the object to be monitored.
For a description of each object, see “Objects” on page 5-27.
- 4 Open the **Seconds** drop-down menu and select the number of seconds for which statistics are to be gathered.
- 5 Use the scroll button to change the graph’s count-per-second display (scroll up to increase the count-per-second, scroll down to decrease it).
 - ☐ **Average per Second** — the average number of occurrences since opening or resetting the screen.
 - ☐ **Peak per Second** — the largest number of occurrences since opening or resetting the screen.
- 6 Click **Reset** to reset the counters to zero.

Viewing Packet Statistics (Table Format)

To view packet statistics in a table format:

- 1 Select a port for which statistics are to be gathered by clicking on it once.

▲ **Important:** Statistics can be viewed at the port-level only.

- 2 Click **PktTable**.

Packet statistics appear for the selected port, similar to Figure 4-20.

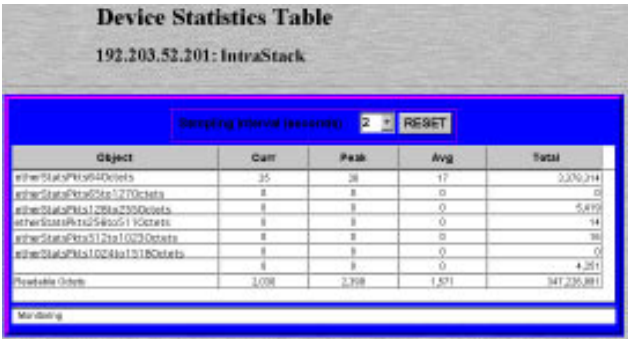


Figure 4-20 Packet Statistics (table format)

For a description of each object, see “Objects” on page 5-30.

- 3 Open the **Sampling Interval** drop-down menu and select the number of seconds to poll for statistics.

Statistics are automatically gathered at the selected interval in the following columns:

- ❑ **Curr** — (current) the number of occurrences each second.
- ❑ **Peak** — the largest number of occurrences since opening or resetting the screen.
- ❑ **Avg** — (average) the average number of occurrences since opening or resetting the screen.
- ❑ **Total** — the total number of occurrences since opening or resetting the screen.

- 4 Click Reset to reset the counters to zero.

Viewing Packet Statistics (Graph Format)

To view packet statistics in a graph format:

- 1 Select a port for which statistics are to be gathered by clicking on it once on the front-panel image.

▲ **Important:** Statistics can be viewed at the port-level only.

- 2 Click **PktGraph**.

Packet Statistics appears for the selected port, similar to Figure 4-21.

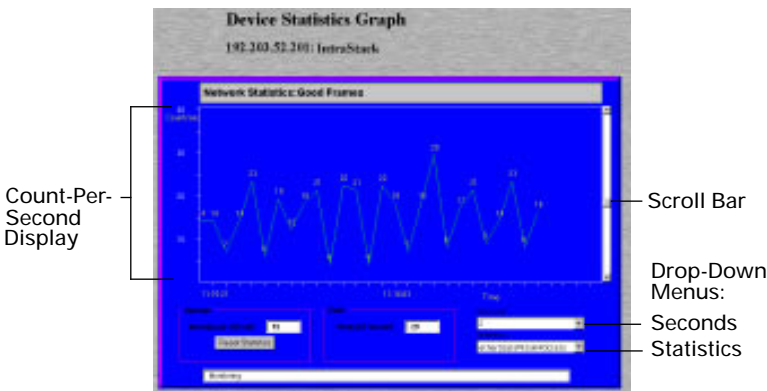


Figure 4-21 Packet Statistics (graph format)

- 3 Open the **Statistics** drop-down menu and select the object to be monitored.

For a description of each object, see “Objects” on page 5-30.

- 4 Open the **Seconds** drop-down menu and select the number of seconds for which statistics are to be gathered.

- 5 Use the scroll button to change the graph’s count-per-second display (scroll up to increase the count-per-second, scroll down to decrease it).

☐ **Average per Second** — the average number of occurrences since opening or resetting the screen.

- ❑ **Peak per Second** — the largest number of occurrences since opening or resetting the screen.

6 Click **Reset** to reset the counters to zero.

5

Menus

This chapter describes each management menu on the IntraStack 6000 Series's Device Page.

The table below provides a brief description of each menu; the sections that follow explain each menu in detail.

Table 5-1 Device Page Menu Descriptions

Menu	Description
Configuration	Title for the submenus listed below it; this menu cannot be selected. See "Configuration" on page 5-4.
Identify	Allows you to view and configure device identification information. See "Identify" on page 5-4.
Agent	Allows you to view agent information. Also allows you to configure the device's image load mode, remote boot information, and out-of-band dial string and baud rate. See "Agent" on page 5-5.
IPAgent	Allows you to view and configure the IP address, default gateway, and boot server address for the device. Also allows you to set the Telnet idle time-out period. See "IPAgent" on page 5-7.
swAgentSW	Allows you to view and configure the information needed for downloading a new image file or configuration file. Also allows you to enable or disable the Spanning Tree Protocol. See "swAgentSW" on page 5-9.
swAgentHW	Allows you to view hardware information on the device's SNMP agent (such as DRAM and EEPROM size). See "swAgentHW" on page 5-11.
swBasic	Allows you to view basic information (such as the back-plane type and group capacity) on the device or a particular group. See "swBasic" on page 5-12.

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Menu	Description
BankImage	Allows you to view the latest information on the device's two image banks. See "BankImage" on page 5-13.
Control	Title for the sub-menus listed below it; this menu cannot be selected. See "Control" on page 5-14.
Reset	Allows you to reset the device or a selected group. See "Reset" on page 5-14.
AutoNegotiate	Allows you to view and configure port configuration information (including enabling/disabling a port and restarting a port's auto-negotiation ability). See "AutoNegotiate" on page 5-15.
GroupInfo	Allows you to view information about each group within the device. Also allows you to enable or disable a selected group. See "GroupInfo" on page 5-17.
MonitorIP	Allows you to view the device's IP Address Monitoring table, which displays the last addresses learned by the device. See "MonitorIP" on page 5-18.
PortCtrl	Allows you to enable or disable the following: a port, port filtering, store-and-forwarding, or the Spanning Tree Protocol on a particular port. See "PortCtrl" on page 5-19.
PortInfo	Allows you to view general port information (such as port type, auto-negotiation status, and port speed) for each port. See "PortInfo" on page 5-21.
TrapRecv	Allows you to view, add, and delete trap receiver entries. See "TrapRecv" on page 5-22.
Spanning	Allows you to view and configure the Spanning Tree Protocol. See "Spanning" on page 5-23.
Filter	Title for the sub-menu listed below it; this menu cannot be selected. See "Filter" on page 5-26.
Forwarding	Allows you to view filter forwarding information on the device. See "Forwarding" on page 5-26.
Validate	Updates the Device Page with the latest information from the IntraSpection Application Server database. See "Validate" on page 5-27.
Statistics	Title for the submenus listed below it; this menu cannot be selected. See "Statistics" on page 5-27.
Table	Allows you to view real-time counter statistics, in a table format, on a selected port. See "Table" on page 5-27.

Menu	Description
Graph	Allows you to view real-time counter statistics, in a graph format, on a selected port. See “Graph” on page 5-29.
PktTable	Allows you to view real-time packet statistics, in a table format, on a selected port. See “PktTable” on page 5-30.
PktGraph	Allows you to view real-time packet statistics, in a graph format, on a selected port. See “PktGraph” on page 5-31.

Configuration

This menu is not a management option; it is a title for the configuration sub-menus listed below it. This menu CANNOT be selected.

Identify

This menu provides read-only and configurable identification information for the device.

Table 5-2 describes each field in the Identify menu.

- Δ **Note:** For instructions on using this menu, see “Configuring Device Identification Information” on page 4-8.

Table 5-2 Identify Menu

Field	Description
PhyAddr	Read-only field; displays the device's hardware address.
ObjectID	Read-only field; displays the device's SNMP identifying number.
Description	Read-only field; displays a description of the device.
Name	Configurable field; assigns a name to the device. Note: A maximum of 254 characters (including spaces) is allowed.
Location	Configurable field; assigns a location to the device. Note: A maximum of 254 characters (including spaces) is allowed.
Contact	Configurable field; assigns a name of the person responsible for the device. Note: A maximum of 254 characters (including spaces) is allowed.
Up Time	Read-only field; displays the amount of time the device has been operational since the last time it was off-line (in days, hours, minutes, and seconds).
Interfaces	Read-only field; displays the number of network interfaces present on the device.

Agent

This menu displays read-only and configurable SNMP agent information for the device; including; the image load method and protocol and the out-of-band dial string and baud rate.

Table 5-3 describes each field in the Agent menu.

△ **Note:** For instructions on using this menu, see “Configuring Out-of-Band Information” on page 4-6 and “Configuring Bootstrap Parameters” on page 4-7.

Table 5-3 Agent Menu

Field	Description
SWVersion Major	Read-only field; displays the major software version number of the agent runtime image.
SWVersion Minor	Read-only field; displays the minor software version number of the agent runtime image.
Image Load Mode	Configurable field; determines if the device is to load the software image from its internal FLASH EPROM or from the network. <div><input type="checkbox"/> localBoot — the software image is loaded from the device's FLASH EPROM.</div> <div><input type="checkbox"/> netBoot — the software image is loaded from the network.</div>
Method	Read-only field; displays the method for getting boot parameter information (always displays eeeprom-BootInfo [use EEPROM boot parameters]).
Protocol	Configurable field; determines the method used for requesting the software image file from the network. <div><input type="checkbox"/> bootp-tftp — the device requests an IP address from a BootP server and downloads the software image file through TFTP (trivial transfer protocol).</div> <div><input type="checkbox"/> tftp — the device only downloads the software image file through TFTP (an IP address is not requested).</div>
File	Configurable field; determines the name and network path of the software image file.
Dial String	Configurable field; determines the initialization string used by the network management station to establish an out-of-band connection (such as a modem).

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Field	Description
Baud Rate	Configurable field; determines the baud rate setting for the out-of-band port. <input type="checkbox"/> b1200 — 1200 baud rate <input type="checkbox"/> b2400 — 2400 baud rate <input type="checkbox"/> b4800 — 4800 baud rate <input type="checkbox"/> b9600 — 9600 baud rate <input type="checkbox"/> b19200 — 19200 baud rate
Revision	Read-only field; displays the hardware reversion number of the device.
Model No.	Read-only field; displays the hardware model number of the device.
FWVersion Major	Read-only field; displays the major firmware version number of the agent prom code.
FWVersion Minor	Read-only field; displays the minor firmware version number of the agent prom code.

IP Agent

This menu displays read-only and configurable IP (Internet Protocol) agent information for the device; including, the device's IP address, subnet mask, default gateway, and Telnet information.

Table 5-4 describes each field in the IP Agent menu.

- △ **Note:** For instructions on using this menu, see “Configuring IP Information” on page 4-5.

Table 5-4 IP Agent Menu

Field	Description
IpAddr	Configurable field; determines the IP address of the agent. ▲ Important: This parameter only takes effect after an agent restart or reset.
IpNetMask	Configurable field; determines the IP subnet mask of the agent. ▲ Important: This parameter only takes effect after an agent restart or reset.
DefaultGateway	Configurable field; determines the default gateway IP address of the agent. ▲ Important: This parameter only takes effect after an agent restart or reset.
BootServerAddr	Configurable field; determines the IP address of the boot server that was used for booting this agent. ▲ Important: This parameter only takes effect after an agent restart or reset.
UnAuthIP	Read-only field; displays the IP address of the last station that tried to access this device with an invalid community string.
UnAuthComm	Read-only field; displays the community string of the last station that tried to access this device with an invalid community string.
Sessions	Read-only field; displays the number of simultaneous Telnet sessions that can be used to access the device for management.
SessionsActive	Read-only field; displays the number of currently active Telnet sessions.

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Field	Description
TimeOut	Configurable field; determines the Telnet idle time-out period. Note: The default is 20 minutes.

swAgentSW

This menu displays configurable and read-only software information for the device's SNMP agent. It allows you to download a new image file or configuration file and enable or disable the Spanning Tree Protocol.

Table 5-5 describes each field in the swAgentSW menu.

- △ **Note:** For instructions on using this menu, see “Performing a Software Upgrade” on page 4-20 and “Downloading a Configuration File” on page 4-23.

Table 5-5 swAgentSW Menu

Field	Description
Up/Download Action	Configurable field; displays the agent's current uploading or downloading action (for either the configuration file or the image file). <ul style="list-style-type: none"> <input type="checkbox"/> off — the agent is not in the up/download mode. <input type="checkbox"/> Download — the agent is in the downloading mode. <input type="checkbox"/> Upload — the agent is in the uploading mode (this action is only for the configuration file).
Up/Download Status	Read-only field; displays the agent's last uploading or downloading action (for either the configuration file or the image file). <ul style="list-style-type: none"> <input type="checkbox"/> Action-Success — the up/download was successful. <input type="checkbox"/> Action-Failure — the up/download failed. <input type="checkbox"/> In-Progress — up/download is in progress. <input type="checkbox"/> No-Action — no up/download was attempted.
Download File	Configurable field; determines which file (either the configuration file or image file) to be downloaded.
Config Server	Configurable field; determines the IP address of the configuration file server. This IP address is specific for the configuration file up/download server.
Config FileName	Configurable field; determines the name and network path of the device configuration file.
Config Retires	Configurable field; determines the number of attempts that will be made for downloading the configuration file.

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Field	Description
Image Server	Configurable field; determines the IP address of the image file server. This IP address is specific for the agent image file download server.
Image File Name	Configurable field; determines the name and network path of the image file.
Image Retries	Configurable field; determines the number of attempts that will be made for downloading the image file.
Active Image Bank	Configurable field; determines the image bank for the next boot-up. Note: The IntraStack has two areas (or “banks”) where its runtime software is stored (the Active Image Bank and Download Bank).
Download Bank	Read-only field; displays the number of the current download image bank.
Reset Wait	Configurable field; determines the amount of time the system waits before performing a reset. ▲ Important: This value can be from 0 seconds to 86400 seconds (24 hours).
Reset Left	Read-only field; displays the amount time remaining until the system performs a reset.
Telnets	Read-only field; displays the number of Telnet sessions that can be used to access the device for management.
TelnetsActive	Read-only field; displays the number of currently active Telnet sessions.
Telnet TimeOut	Configurable field; determines the Telnet idle time-out period. Note: The default is 20 minutes.
STP	Configurable field; enables or disables the Spanning Tree Protocol on the device.

swAgentHW

This menu displays read-only hardware information for the device's SNMP agent.

Table 5-6 describes each field in the swAgentHW menu.

Table 5-6 swAgentHW Menu

Field	Description
DRAMSize	Read-only field; displays the DRAM size (in bytes) on the device's hardware board.
FlashRAMSize	Read-only field; displays the FlashRAM size (in bytes) on the device's hardware board.
EEPROMSize	Read-only field; displays the EEPROM size (in bytes) on the device's hardware board.

swBasic

This menu displays read-only information on the device; such as, its backplane type and group capacity.

Table 5-7 describes each field in the swBasic menu.

Table 5-7 swBasic Menu

Field	Description
Type	Read-only field; displays the Ethernet switch type.
Back Plane Type	Read-only field; displays the back plane of this device.
Group Capacity	Read-only field; displays the number of groups that can be contained within the device.
StackLastChange	Read-only field; displays the sysUpTime value of the last change of stack status since the entire stack has been in operation. If no change has occurred since the stack has been in operation, the value displayed is 0s .

BankImage

This menu displays read-only information on the device's two image banks.

Table 5-8 describes each field in the BankImage menu.

Table 5-8 BankImage Menu

Field	Description
Index	Read-only field; displays the number of the entry in the BankImage Table.
MajorVersion	Read-only field; displays the major version number of the bank image software.
MinorVersion	Read-only field; displays the minor version number of the bank image software.
Date Time	Read-only field; displays the date and time of the bank image software.

Control

This menu is not an actual management option; it is a title to the sub-menus listed below it. This menu CANNOT be selected.

Reset

This menu allows you to reset the device or a selected group.

Table 5-9 describes each field in the Reset table at the device level;

Table 5-10 describes each field in the Reset table at the group level.

△ **Note:** For instructions on using this menu, see “Resetting the IntraStack” on page 4-15.

Table 5-9 Reset Menu (Device Level)

Field	Description
Action	Configurable field; resets the device. <input type="checkbox"/> not-reset — does not reset the device. <input type="checkbox"/> reset — resets the device

Table 5-10 Reset Menu (Group Level)

Field	Description
Group Number	Read-only field; displays the number of the selected group.
Action	Configurable field; resets the device. <input type="checkbox"/> noReset — does not reset the device. <input type="checkbox"/> Reset — resets the device

AutoNegotiate

This menu displays configurable and read-only auto-negotiation information on each of the device's ports.

Table 5-11 describes each field in the AutoNegotiate menu.

△ **Note:** For instructions on using this menu, see “Configuring Auto Negotiation” on page 4-11.

Table 5-11 AutoNegotiate Menu

Field	Description
GrpIndex	Read-only field; displays the number of the group for which information is displayed.
PortIndex	Read-only field; displays the number of the port for which information is displayed.
AdminState	Configurable field; determines the auto-negotiation status of the port. <ul style="list-style-type: none"> <input type="checkbox"/> enable — the port is enabled for auto-negotiation. <input type="checkbox"/> disable — the port's auto-negotiation ability is disabled.
RemoteAble	Read-only field; displays the auto-negotiation capabilities of the connected device (remote device). <ul style="list-style-type: none"> <input type="checkbox"/> able — auto-negotiation capabilities are enabled. <input type="checkbox"/> not_able — auto-negotiation capabilities are not enabled.
AutoConfig	Read-only field; indicates whether auto-negotiation signaling is in progress or has completed.

Field	Description
LocalAbility	<p>Read-only field; displays the connecting ability of the local port in the device (what the port is capable of). The information displayed is in hexadecimal format; for example, IE:00 (where "IE" is Byte 1 and "00" is Byte 2).</p> <p>Bit definitions:</p> <p>Byte 1:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 0 — undefined <input type="checkbox"/> 1 — 10Base-T capable <input type="checkbox"/> 2 — 10Base-T full duplex capable <input type="checkbox"/> 3 — 100Base-TX capable <input type="checkbox"/> 4 — 100Base-TX full duplex capable <input type="checkbox"/> 5 — 100Base-FX full duplex <input type="checkbox"/> 6 — 100Base-T4 capable <input type="checkbox"/> 7 — 802.9 capable <p>Byte 2: All bits reserved</p>
AdvertisedAbility	<p>Configurable field; determines the port's advertised capabilities.</p> <p>For example, a port may be capable of full duplex operation; however, you can change its Advertised-Ability so that it appears to not be capable of full duplex operation.</p> <p>The information displayed is in hexadecimal format. See "LocalAbility" above for a description of the format and its definitions.</p>
ReceivedAbility	<p>Read-only field; displays what the port is actually doing.</p> <p>The information displayed is in hexadecimal format. See "LocalAbility" above for a description of the format and its definitions.</p>
RestartAutoConfig	<p>Configurable field; forces auto-negotiation to begin link negotiation.</p> <p>▲ Important: This has no effect if auto-negotiation signaling is disabled.</p>

GroupInfo

This menu displays configurable and read-only information on each of the device's groups.

Table 5-12 describes each field in the GroupInfo menu.

Table 5-12 GroupInfo Menu

Field	Description
Index	Read-only field; displays the number of the entry in the Group Basic Info Table.
Physical Addr	Read-only field; displays the ID of this group (it uses the MAC address of the first port in this group as the ID).
State	Configurable field; enables or disables the group within the device stack.
Ports	Read-only field; displays the number of ports (including MII expansion ports) contained in this group.
Module Type	Read-only field; displays the type of module of the selected group.
Description	Read-only field; displays a description of this group.
FanStatus	Read-only field; displays the status of the group's fan. <ul style="list-style-type: none"> <input type="checkbox"/> normal — the fan is in good condition <input type="checkbox"/> no-fan — no fan is in this module <input type="checkbox"/> fail — the fan is in "failed" condition <input type="checkbox"/> fan-1 bad — fan #1 is in "failed" condition <input type="checkbox"/> fan-2 bad — fan #2 is in "failed" condition <input type="checkbox"/> fan-1-2 bad — fan #1 and fan #2 are in "failed" condition
ExpPorts	Read-only field; displays the number of expansion ports in this group.
LastChange	Read-only field; displays the sysUpTime of last change of group status since this group has been in operation.
Reset	Configurable field; resets the selected group.

MonitorIP

This menu displays the device’s MAC address table.

The MAC address table is a table of node addresses that the IntraStack receives on its ports. It uses the information in this table to decide whether a frame should be forwarded or filtered.

Each entry consists of the MAC address of the device and an identifier for the port on which it was received.

Table 5-13 describes each field in the MonitorIP menu.

Δ **Note:** For instructions on using this menu, see “Viewing the Port Address Table” on page 4-18.

Table 5-13 MonitorIP Menu

Field	Description
IP Address	Read-only field; displays the corresponding IP address to the MAC address.
MacAddress	Read-only field; displays the source MAC address of a monitor entry.
VLANID	Read-only field; displays the VLAN number of this monitor address entry.
Group	Read-only field; displays the group number from which the IP address is learned.
Port	Read-only field; displays the port number from which the IP address is learned.

PortCtrl

This menu displays read-only and configurable port parameter information for each port within the device.

It allows you to enable or disable a port as well as enable or disable the following:

- ☐ Broadcast filtering
- ☐ Store-and-forwarding
- ☐ The Spanning Tree protocol

Table 5-14 describes each field in the PortCtrl menu.

- △ **Note:** For instructions on using this menu, see “Configuring Port Parameters” on page 4-11 or “Enabling or Disabling a Port” on page 4-14.

Table 5-14 PortCtrl Menu

Field	Description
Group	Read-only field; displays the number of the group to which the selected port belongs.
Port	Read-only field; displays the number of the selected port.
State	Configurable field; allows you to enable or disable the selected port. ▲ Important: This not only enables or disables the selected port, but it also controls the port’s Spanning Tree Protocol and LED status.
Filter	Configurable field; enables or disables the broadcast packet filtering control on the selected port. <input type="checkbox"/> enabled — broadcast packets are discarded. <input type="checkbox"/> disabled — broadcast packets are processed normally.
StNFw	Configurable field; enables or disables the store-and-forward control information for the selected port. <input type="checkbox"/> enabled — the port stores the received packet then forwards it. <input type="checkbox"/> disabled — the store-and-forward ability is disabled.

Field	Description
STP	<p>Configurable field; enables or disables the Spanning Tree Protocol on the selected port.</p> <ul style="list-style-type: none"><input type="checkbox"/> Enable — the port joins the Spanning Tree Protocol calculation; the state of the port is decided by STP and will be in blocking, listening, learning, or forwarding mode.<input type="checkbox"/> Disable — the port is removed from the Spanning Tree Protocol calculation.▲ Important: if the port's state is enabled and the STP is disabled, the port remains in the forwarding mode.

PortInfo

This menu displays read-only port information (such as the port's type, auto-negotiation status, link status, speed, and duplex mode) for each port within the device.

Table 5-15 describes each field in the PortInfo menu.

△ **Note:** For instructions on using this menu, see “Viewing Port Parameters” on page 4-10.

Table 5-15 PortInfo Menu

Field	Description
GrpIndex	Read-only field; displays the number of the group to which the port belongs.
Index	Read-only field; displays the number of the port.
Port Type	Read-only field; displays the type of port. <ul style="list-style-type: none"> <input type="checkbox"/> RJ45 — regular TX port <input type="checkbox"/> MII_RJ45 — expansion port TX <input type="checkbox"/> MII_Empty — expansion port empty <input type="checkbox"/> MII — expansion port, type unknown <input type="checkbox"/> MII_FOIL — expansion port FX <input type="checkbox"/> FOIL — regular FX port
AutoNeg	Read-only field; displays the auto-negotiation ability of the port. <ul style="list-style-type: none"> <input type="checkbox"/> with — the port is capable of auto-negotiation <input type="checkbox"/> without — the port is not capable of auto-negotiation
Link	Read-only field; displays the link status of the port.
Port Speed	Read-only field; displays the working speed of the port. <ul style="list-style-type: none"> <input type="checkbox"/> 10Mbps — the port is operating at 10Mbps <input type="checkbox"/> 100Mbps — the port is operating at 100Mbps.
Port Duplex	Read-only field; displays the working mode of the port. <ul style="list-style-type: none"> <input type="checkbox"/> Half-Duplex — the port is operating in half-duplex mode. <input type="checkbox"/> Full Duplex — the port is operating in full-duplex mode.

TrapRecv

This menu allows you to determine the management stations that will receive traps from the device.

Table 5-16 describes each field in the TrapRecv menu.

- △ **Note:** For instructions on using this menu, see “Managing Trap Receivers” on page 4-16.

Table 5-16 Trap Receiver Menu

Field	Description
Status	Configurable field; determines the status of the trap receiving station's entry. <input type="checkbox"/> valid — the trap receiving station's entry is active. <input type="checkbox"/> invalid — the trap receiving station's entry is not active (deletes the entry when selected).
Trap Receiver Address	Configurable field; determines the IP address of the management station that can receive traps.
Community String	Configurable field; determines the write community string of the trap receiving management station.

Spanning

This menu allows you to view and configure the SpanningTree Protocol.

▲ **Important:** Do **not** change any of the SpanningTree Protocol parameters unless you are familiar with the IEEE 802.1d specification.

Table 5-17 describes each field in the Spanning menu.

△ **Note:** For instructions on using this menu, see “Configuring SpanningTree Parameters” on page 4-28.

For clarity, the IntraStack device is referred to as a “bridge” in this table.

Table 5-17 Spanning Menu

Field	Description
Protocol Specification	Read-only field; displays the IEEE protocol specification.
Priority	Configurable field; integer (from 0 - 65535) used to determine the priority of the selected bridge during Spanning Tree configuration. The lower the value, the higher the bridge priority and the more likely it will be selected as a forwarding bridge (and possible, the root bridge) in a Spanning Tree.
Designated Root	Read-only field; displays the unique bridge ID of the current root bridge in the Spanning Tree. The ID is based on its physical address and priority. Designated Root is sometimes referred to as Root Bridge ID.
Root Cost	Read-only field; displays the calculated distance from the selected bridge to the root bridge, as seen from the selected bridge.
Root Port	Read-only field; displays the port on the selected bridge with the lowest cost route to the current root bridge. The port is determined during Spanning Tree configuration. If the selected bridge is the root bridge, the value is 0.

Field	Description
Maximum Age	<p>Read-only field; displays the maximum permissible age, in seconds, provided by the current Root Bridge for Spanning Tree configuration information to remain active on the selected bridge.</p> <p>When the time-span expires and the bridge has not received any BPDUs, it discards the current Spanning Tree information and initiates a new round of Spanning Tree configuration.</p> <p>All the bridges in the Spanning Tree receive this value in a BPDU from the root bridge, and they display the value in this field.</p> <p>If the age value is too small, it can cause unnecessary Spanning Tree reconfigurations and possibly a temporary loss of connectivity on the network. If the value is too large, the network takes longer than necessary to adjust to a new Spanning Tree after a bridge goes down or a link is lost, which can cause collisions.</p>
Hello Time	<p>Read-only field; displays the amount of time, in seconds, provided by the current Root Bridge between transmissions of configuration BPDUs.</p> <p>The parameter works in parallel with the Spanning Tree Hold Time, which should be greater than the Hello Time. If it is smaller, the Spanning Tree Algorithm responds more quickly to configuration changes, resulting in increased network traffic.</p>
Hold Time	<p>Read-only field; displays the amount of time, in seconds, provided by the current root bridge that each configuration BPDU is held by the bridge before being sent out.</p> <p>This timer works in parallel with the Spanning Tree Hello Time and should be smaller than the Hello Time.</p>
Forward Delay	<p>Read-only field; displays the delay time, in seconds, provided by the current Root Bridge before a bridge starts forwarding data packets.</p> <p>Before a bridge changes a port from blocking to forwarding, it passes through the listening and learning transition states. The time the bridge spends between the listening and learning states and between the learning and forwarding states is the forward delay time.</p>

Field	Description
Bridge Maximum Age	<p>Configurable field; the maximum permissible age, in seconds, provided by the current root bridge for Spanning Tree configuration information to remain active on the selected bridge.</p> <p>When the time-span expires and the bridge has not received any BPDUs, it discards the current Spanning Tree information and initiates a new round of Spanning Tree configuration.</p> <p>The recommended IEEE 802.1d time is 20s (twenty seconds).</p>
Bridge Hello Time	<p>Configurable field; the amount of time, in seconds, provided by the current root bridge between transmissions of configuration BPDUs. This timer works with the Spanning Tree Hold Time, which should be greater than the Hello Time.</p> <p>If it is smaller, the Spanning Tree algorithm responds more quickly to configuration changes, resulting in increased network traffic.</p> <p>The recommended IEEE 802.1d time is 2s (two seconds).</p>
Bridge Forward Delay	<p>Configurable field; the delay time, in seconds, provided by the current root bridge before a bridge starts forwarding data packets.</p> <p>The recommended IEEE 802.1d time is 15s (15 seconds).</p>
Time Since Topology Change	<p>Read-only field; displays the length of time since the topology was changed.</p>
Number Topology Changes	<p>Read-only field; displays the number of topology changes that have occurred.</p>

Filter

This menu is not an actual management option; it is a title to the sub-menus listed below it. This menu CANNOT be selected.

Forwarding

This menu provides read-only forwarding and/or filtering information on the device.

Table 5-18 describes each field in the Forwarding menu.

Table 5-18 Forwarding Menu

Field	Description
Index	Read-only field; displays the number of the entry in the Filter Forwarding Information table.
Physical Address	Read-only field; displays the device's hardware address.
Receive Port	Read-only field; displays the port number on which the IntraStack detected this device.
Status	Read-only field; displays the address status: <ul style="list-style-type: none"><input type="checkbox"/> other — none of the following:<input type="checkbox"/> invalid — this entry is no longer valid (e.g., it was learned but has since aged-out), but has not yet been flushed from the table.<input type="checkbox"/> learned — the address was learned and is being used.<input type="checkbox"/> self — this is the address of the selected bridge.

Validate

This menu updates the Personality Module's Device Page with the latest information stored in the IntraSpecation Application Server database.

For instructions on using this menu, see "Updating the Device Page" on page 4-9.

Statistics

This menu is not an actual management option; it is a title to the sub-menus listed below it. This menu CANNOT be selected.

Table

This menu provides real-time **counter** statistics, in a table format, on a selected port.

Table 5-19 describes each field in the Table menu.

△ **Note:** For instructions on using this menu, see "Viewing Counter Statistics (Table Format)" on page 4-30.

Table 5-19 Table Menu

Field	Description
Sampling Interval	Configurable field; allows you to set the amount of time (in seconds) that the port is polled for information.
Reset	Button; resets the counters to zero in the table.
Objects	<ul style="list-style-type: none"> <input type="checkbox"/> etherStatsOctets — the total number of octets of data (including those in bad packets) received on the network (excluding framing bits but including FCS octets). <input type="checkbox"/> etherStatsPkts — the total number of packets (including error packets) received. <input type="checkbox"/> etherStatsBroadcastPkts — the total number of good packets received that were directed to the broadcast address. <input type="checkbox"/> etherStatsMulticastPkts — the total number of good packets received that were directed to a multicast address. Note that this number does not include packets directed to the broadcast address.

Field	Description
	<ul style="list-style-type: none"> <li data-bbox="378 212 894 399">❑ etherStatsCRCAlignErrors — the total number of packets received that had a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets, inclusive, but were not an integral number of octets in length or had a bad Frame Check Sequence (FCS). <li data-bbox="378 410 894 545">❑ etherStatsUndersizePkts — the total number of packets received that were less than 64 octets long (excluding framing bits, but including FCS octets) and were otherwise well formed. <li data-bbox="378 557 894 662">❑ etherStatsOversizePkts — the total number of packets received that were longer than 1518 octets (excluding framing bits, but including FCS octets) and were otherwise well formed. <li data-bbox="378 673 894 779">❑ etherStatsFragments — the number of frames received that were less than the minimum permitted frame size and have a bad FCS or alignment error. <li data-bbox="378 790 894 961">❑ etherStatsJabbers — the total number of packets received that were longer than 1518 octets (excluding framing bits, but including FCS octets), and were not an integral number of octets in length or had a bad Frame Check Sequence (FCS). <li data-bbox="378 972 894 1024">❑ etherStatsCollisions — the total number of collisions. <li data-bbox="378 1036 894 1117">❑ Datarate Mismatch — the number of errors where the incoming data rate is not within the tolerance level of 10Mhz (+ or - 0.01%). <li data-bbox="378 1128 894 1180">❑ Short Events — the number of data bursts, where data is less than 10 bytes in length. <li data-bbox="378 1192 894 1243">❑ MauJabberLockups — the number of times the repeater chip goes into a lockup state. <li data-bbox="378 1255 894 1336">❑ Auto Partitions — the number of times the port was automatically partitioned in response to 31 or more continuous collisions. <li data-bbox="378 1347 894 1377">❑ Bad Frames — the number of invalid frames. <li data-bbox="378 1388 894 1440">❑ Readable Octets — the total number of octets received from valid frames.

Graph

This menu provides real-time **counter** statistics, in a graph format, on a selected port.

Table 5-20 describes each field in the Graph menu.

- △ **Note:** For instructions on using this menu, see “Viewing Counter Statistics (Graph Format)” on page 4-31.

Table 5-20 Graph Menu

Field	Description
Seconds	Drop-down menu; specifies the amount of time (in seconds) that the port is polled for information.
Statistics	Drop-down menu; determines the object for which statistics are gathered. Note: For a description of each object, see “Objects” on page 5-27.
Average per second	Displays the average number of occurrences since opening or resetting the screen.
Reset Statistics	Button; resets the counters to zero.
Peak per second	Displays the largest number of occurrences since opening or resetting the screen.
Count-per-second display	Displays the amount of counts (per second) displayed on the graph. Note: To control the count-per-second display, use the scroll bar on the right side of the graph (scroll up to increase the count-per-second; scroll down to decrease it).
Objects	For a description of each object, see “Objects” on page 5-27.

PktTable

This menu provides real-time **packet** statistics, in a table format, on a selected port.

Table 5-21 describes each field in the PktTable menu.

Δ **Note:** For instructions on using this menu, see “Viewing Packet Statistics (Table Format)” on page 4-33.

Table 5-21 PktTable Menu

Field	Description
Sampling Interval	Configurable field; allows you to set the amount of time (in seconds) that the port is polled for information.
Reset	Button; resets the counters to zero in the table.
Objects	<div><div><input type="checkbox"/></div><div>etherStatsPkts64Octets — the total number of packets (including error packets) received that were 64 octets in length (excluding framing bits but including FCS octets).</div></div> <div><div><input type="checkbox"/></div><div>etherStatsPkts65to127Octets — the total number of packets (including error packets) received that were between 65 and 127 octets in length inclusive (excluding framing bits but including FCS octets).</div></div> <div><div><input type="checkbox"/></div><div>etherStatsPkts128to255Octets — the total number of packets (including error packets) received that were between 128 and 255 octets in length inclusive (excluding framing bits but including FCS octets).</div></div> <div><div><input type="checkbox"/></div><div>etherStatsPkts256to511Octets — the total number of packets (including error packets) received that were between 256 and 511 octets in length inclusive (excluding framing bits but including FCS octets).</div></div> <div><div><input type="checkbox"/></div><div>etherStatsPkts512to1023Octets — the total number of packets (including error packets) received that were between 512 and 1023 octets in length inclusive (excluding framing bits but including FCS octets).</div></div> <div><div><input type="checkbox"/></div><div>etherStatsPkts1024to1518Octets — the total number of packets (including error packets) received that were between 1024 and 1518 octets in length inclusive (excluding framing bits but including FCS octets).</div></div>

PktGraph

This menu provides real-time **packet** statistics, in a graph format, on a selected port.

Table 5-22 describes each field in the PktGraph menu.

- △ **Note:** For instructions on using this menu, see “Viewing Packet Statistics (Graph Format)” on page 4-34.

Table 5-22 PktGraph Menu

Field	Description
Seconds	Drop-down menu; specifies the amount of time (in seconds) that the port is polled for information.
Statistics	Drop-down menu; determines the object for which statistics are gathered. Note: For a description of each object, see “Objects” on page 5-30.
Average per second	Displays the average number of occurrences since opening or resetting the screen.
Reset Statistics	Button; resets the counters to zero.
Peak per second	Displays the largest number of occurrences since opening or resetting the screen.
Count-per-second display	Displays the amount of counts (per second) displayed on the graph. Note: To control the count-per-second display, use the scroll bar on the right side of the graph (scroll up to increase the count-per-second; scroll down to decrease it).
Objects	For a description of each object, see “Objects” on page 5-30.



Technical Support

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World Wide Web	http://www.asante.com
Bulletin Board Service (BBS)	(408) 432-1416
ARA BBS (guest log in)	(408) 894-0765
AppleLink mail/BBS	ASANTE
FTP Archive	ftp.asante.com

Technical Support Hours

6:00 A.M. to 5:00 P.M. Pacific Standard Time USA, Monday – Friday.

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